

## CALIFORNIA

### **BeachData Volunteer Database Entry Tool—2002, 2003**

This tool is an Internet-based data entry system designed to allow volunteer beach observers to enter detailed field observations of the conditions of California beaches into a searchable database.

### **Channel Islands National Marine Sanctuary (NMS) Marine Reserve Process—2000**

The Center provided facilitation services to a multistakeholder marine reserve working group established by the Sanctuary Advisory Council of the Channel Islands NMS. The purpose of this effort was to create a consensual agreement on the establishment of marine reserves, or “no-take” areas, in the Channel Islands NMS. In addition, the Center provided technical support in the development of a GIS-based decision-support tool for the process. This GIS application helps consolidate and integrate the best available ecological and socioeconomic information, as well as local knowledge of the area.

### **Coastal California Land Cover and Change Data—2002, 2003**

This project maps terrestrial land cover in coastal watershed environments and identifies changes in these areas. The project relies on satellite multispectral imagery as the primary information source. These data are used to distinguish major land cover classes, and previous images are being studied to locate areas that changed over time. For this project, the data will be acquired according to the Center’s Coastal Change Analysis Program (C-CAP) methods.

### **Coastal Management Fellowship—1996 to 1998**

[www.csc.noaa.gov/cms/1996Fellows.html](http://www.csc.noaa.gov/cms/1996Fellows.html)

A Coastal Management Fellow worked with the California Coastal Commission to conduct a project designed to expand the use of geographic information systems (GIS) for coastal management in California. The project led the way toward the integrated use of GIS tools and data necessary for various regulatory, enforcement, planning, and natural resource management activities.

### **Coastal Management Fellowship—1998 to 2000**

[www.csc.noaa.gov/cms/fellow98.html](http://www.csc.noaa.gov/cms/fellow98.html)

A Coastal Management Fellow worked with the California Coastal Commission to develop information and evaluation tools for an objective examination of beach nourishment projects throughout the state. Criteria and a methodology were established to evaluate and prioritize the suitability of sites for beach nourishment projects.

### **Coastal Management Fellowship—2000 to 2002**

[www.csc.noaa.gov/cms/00\\_fellows.html](http://www.csc.noaa.gov/cms/00_fellows.html)

A Coastal Management Fellow worked with the California Coastal Commission on a project entitled “Creation of a Habitat Inventory and Information System to Facilitate Wetland Preservation and Restoration in Central and Northern California.” The project identified significant wetlands in three counties using existing data, remote sensing, and development of an integrated GIS-based data structure.

### **Coastal Management Fellowship—2002 to 2004**

[www.csc.noaa.gov/cms/fellows/02\\_fellows.html](http://www.csc.noaa.gov/cms/fellows/02_fellows.html)

A Coastal Management Fellow is working with the San Francisco Bay Conservation and Development Commission on a project entitled “Development of a Water Quality Monitoring Program for Marinas in the San Francisco Bay.” The project involves collaboration with key federal, state, and local environmental protection and management agencies and organizations to develop a scientifically-based, volunteer water quality monitoring program for marinas in San Francisco Bay. The fellow is monitoring and evaluating several pilot monitoring projects at selected marinas to make recommendations for continued water quality monitoring at marinas throughout the Bay.

## **CZMA Bibliographies**

[www.csc.noaa.gov/CZIC/](http://www.csc.noaa.gov/CZIC/)

The Center's library has cataloged NOAA's Coastal Zone Information Center collection, produced by state coastal management programs under the Coastal Zone Management Act (CZMA). This collection contains documents that span a number of coastal topics and includes brochures, management plans, and legislative information. A bibliography of this information for the State of California is available.

### **El Niño in San Francisco Bay—1997**

NOAA hosted a workshop for property owners, marine operators, resource managers, and members of the general public on the potential effects of El Niño in the San Francisco Bay area. The workshop presented real-world needs and responses to El Niño by local maritime and environmental managers, summaries of the El Niño phenomenon, predictions and possible effects from a panel of experts, and a roundtable discussion of preparation and response strategies based on questions raised by presenters and workshop attendees.

### **Global Positioning System Resources in the San Francisco Bay Area—1998**

NOAA hosted a day of workshops, demonstrations, and exhibits to educate resource managers, engineers, marine safety experts, surveyors, developers, petroleum facility operators, and the public about employing Global Positioning System (GPS) resources in the Bay area. Concurrent workshops focused on the application of GPS and geographic information systems to a wide range of resource management issues, including oil spill response, maritime safety, and resource delineation.

### **Hamilton Wetlands Restoration Workshop—2000**

Accurate knowledge of tidal and terrestrial elevations is critical in the restoration of degraded or destroyed wetlands. NOAA convened a conference to present methodologies for obtaining this information to managers and practitioners involved in wetland restoration in the San Francisco Bay area. Results from a NOAA pilot study, contributing toward a restoration project on the former Hamilton Army Airfield, were presented to illustrate these methodologies and to help establish realistic expectations for the limitations of these methodologies.

### **Hydrographic Data Acquisition and Integrated Spatial Data Model—2002, 2003**

This project is developing high-resolution, digital seafloor bathymetry data suitable for classification and delineation of benthic habitats. These data will be included in a Web site populated with marine mapping products, modeling mapping tools, and geographic information system themes pertinent to the California Department of Fish and Game and other public groups. This information will help these organizations assess habitat quality and improve sampling strategies.

### **Kelp Forest Restoration Project—1999, 2000**

[www.csc.noaa.gov/funding/PastAwards1.html](http://www.csc.noaa.gov/funding/PastAwards1.html)

This project aided in the restoration and protection of kelp forests in southern California by educating and involving residents, businesses, teachers, and students. Kelp is a critical marine habitat that once covered hundreds of acres in this region and provided food and shelter for hundreds of species of marine life. This project was funded by a special project grant from the Center.

### **Marine Information System (MarIS)—2002, 2003**

MarIS is a simple, wizard-driven tool that allows users with limited knowledge of geographic information systems (GIS) to access, view, and analyze spatial data and generate standard map layouts for presentations, reports, or press releases. MarIS was designed specifically for the National Marine Sanctuary's management plan review processes.

**Needs Assessment Training—2000**

Tijuana River National Estuarine Research Reserve (NERR) served as the local host for a two-day workshop that focused on methods and tools to assess the needs of a target audience. Participants included representatives from regional NERRs and other local partners. Networking and resource sharing opportunities were enhanced through discussions.

**Ocean Color Applications Project—1996**

Through this project, processing and classification techniques were developed to evaluate coastal water quality and biological and geologic variables based on remote sensing data from satellite or aircraft. Data on the bio-optical characteristics of diverse U.S. coastal waters were collected. These data are used to validate satellite measurements used for ocean color data products.

**Protected Areas GIS (PAGIS)**

[www.csc.noaa.gov/pagis/](http://www.csc.noaa.gov/pagis/)

The PAGIS project brought compatible geographic information systems (GIS), geographic data management, and Internet capabilities to each of the nation's 25 Estuarine Research Reserves and 13 Marine Sanctuaries. Through PAGIS, the reserves and sanctuaries also developed advanced data sets, underwent extensive training, and found innovative ways to make the most effective use of their new data and technological capabilities.

**Public Issues and Conflict Management—2001**

The California Sea Grant College Program hosted a three-day Public Issues and Conflict Management workshop in May 2001. Aimed at Sea Grant extension agents and coastal resource managers, the workshop is designed to build skills in public issues management, including meeting management and planning, collaborative processes and decision making, and media relations.

**Salmonid Recovery Planning Information Resource—2002, 2003**

[www.csc.noaa.gov/lcr/](http://www.csc.noaa.gov/lcr/)

This information resource is a digital compilation of data and tools that will help coastal resource managers design and implement recovery plans for coho salmon and steelhead trout within the watersheds of San Mateo and Santa Cruz Counties in California. By integrating physical, ecological, and socioeconomic information from these counties with interactive tools, this resource will help coastal managers and land-use planners characterize species, watersheds, and recovery issues in their areas. Managers can also use the resource to identify and prioritize habitat restoration projects and address large-scale, long-term planning and management functions.

**San Francisco Bay/Elkhorn Slough Area Land Cover CD-ROM—1998**

[www.csc.noaa.gov/products/sf/startup.htm](http://www.csc.noaa.gov/products/sf/startup.htm)

This CD-ROM includes land cover change data for the central California coast, 40 additional spatial data layers, and a means for coastal resource managers to display these map layers. This study was particularly significant because, through natural processes and urbanization, California has lost 75 percent of its original coastal wetlands. The area of study includes San Francisco Bay and the Elkhorn Slough National Estuarine Research Reserve. For this project, the data were acquired according to the Center's Coastal Change Analysis Program (C-CAP) methods.

**San Francisco Bay/Elkhorn Slough Area Land Cover and Change Data—1993**

[www.csc.noaa.gov/crs/lca/san\\_fran.html](http://www.csc.noaa.gov/crs/lca/san_fran.html)

This project mapped terrestrial land cover in coastal watershed environments and identified changes in these areas that occurred between 1986 and 1993. The project relied on satellite multispectral imagery as the primary information source. These data were used to distinguish major land cover classes, and previous images were studied to locate areas that changed over time. For this project, the data were acquired according to the Center's Coastal Change Analysis Program (C-CAP) methods.

**San Francisco Bay Footprint Project—2002, 2003**

Through community input from a series of public workshops, the Bay Area Footprint Project will develop a comprehensive smart growth strategy for the entire San Francisco Bay region. The San Francisco Bay Conservation and Development Commission is hosting a number of workshops for this purpose. The Center is one of a number of partners in this effort.

**San Francisco Bay Partnership—2002, 2003**

Dredging and development activities in the San Francisco Bay are affecting eelgrass and other subtidal habitats. To help manage and restore these habitats, this partnership project aims to interpret advanced seafloor mapping data, gather supporting historical and ancillary habitat and species information, focus habitat and eelgrass assessment surveys, and apply a multiagency geographic information system (GIS) database and mapping project framework. The Center is helping to determine habitat types for natural resource management and suggest management and restoration strategies for seagrasses.

**San Francisco International Airport Panel—1999, 2001**

San Francisco International Airport wanted to build new runways out into the bay to address increasing air traffic congestion. Because the proposed runways would constitute one of the largest single fills ever of the bay, federal and state regulatory agencies asked NOAA to form an impartial, independent science panel to identify key questions that the permitting process must address. The panel conducted internal workshops and presented its findings to the public in 1999; a peer review process began in January 2001. A public meeting to discuss the results of the review was conducted, and a proceedings document was prepared for the airport and the Bay area regulatory agencies.

**Southern California Wetlands Recovery Project—2001 to 2003**

[www.coastalconservancy.ca.gov/scwrp/](http://www.coastalconservancy.ca.gov/scwrp/)

The Center is supporting the Southern California Wetlands Recovery Project (WRP) by developing GIS-based tools for prioritizing wetland restoration and conservation options in the five southern counties of coastal California (San Diego, Orange, Los Angeles, Ventura, and Santa Barbara). Analyses of riparian areas are being done across the region to identify areas with high ecological value and to examine the costs and benefits of using land-use and land-cover data collected at different spatial scales to map riparian vegetation. The project is also developing conceptual models that examine the habitat, hydrology, and biogeochemistry functions of wetlands within their landscape context. The WRP is a multiagency effort within California and is led by the California Coastal Conservancy.

**Spatial Data Compilation for the Joint California Management Plan Review Process—2002, 2003**

This compilation of over 70 spatial data layers was developed to support National Marine Sanctuary management plan review processes. The GIS databases provide the sanctuary advisory committees with the ability to analyze spatial data to help them address the issues raised during the review process.

**Topographic Change Mapping—1997, 1998**

[www.csc.noaa.gov/lidar/](http://www.csc.noaa.gov/lidar/)

High-resolution Light Detection and Ranging (LIDAR) measurements of coastal beach topography were made during fall 1997 and spring 1998. These measurements can be used for beach change studies and are available to the public. The mapping includes data from before and after the El Niño season.

**Watershed Analysis Tool for Environmental Review—1996 to 1998**

[www.coastal.ca.gov/h2o/h2osumm.html](http://www.coastal.ca.gov/h2o/h2osumm.html)

This effort produced an Internet-accessible analytical tool for managing polluted runoff across political boundaries. A major stumbling block to managing polluted runoff is the inability of management agencies to exchange and geographically rectify electronic data. Data from different

agencies are often incompatible because of differences in hardware, software, map scales, coordinate systems, and data structures. This tool overcomes these challenges. This project was conducted by the California Coastal Commission under a grant from the Center.